What is claimed is:

1. A liquid crystal drive device for supplying various signals and voltages for effecting display on a liquid crystal display panel comprising a plurality of source electrode interconnects extending in a first direction and juxtaposed in a second direction intersecting the first direction, a plurality of gate electrode interconnects extending in the second direction and juxtaposed in the first direction, an active element constituting a pixel at respective crossover points of the source electrode interconnects and the gate electrode interconnects, a plurality of common electrode interconnects disposed through the intermediary of a liquid crystal layer, and an external terminal coupled in common to the common electrode interconnects, said liquid crystal drive device comprising:

a first terminal to which a first reference voltage is supplied;

a second terminal to which a second reference voltage is supplied;

a third terminal to which a third reference voltage is supplied;

a fourth terminal coupled to the external terminal of the liquid crystal display panel;

a first voltage generation circuit coupled to the first terminal and second terminal, for generating a first voltage higher than the first reference voltage; and

a second voltage generation circuit coupled to the first terminal and second terminal, for generating a second voltage lower than the second reference voltage,

wherein a voltage supplied to the fourth terminal is changed

from the second voltage to the third reference voltage and subsequently, changed form the third reference voltage to the first voltage.

2. A liquid crystal drive device according to claim 1, further comprising:

a first switching element provided between the first voltage generation circuit and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the second voltage to the third reference voltage;

a second switching element provided between the third terminal and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the third reference voltage to the first voltage; and

a control circuit for controlling the first switching element and second switching element such that a period when both the first switching element and second switching element are turned off is provided between a short circuit time of the first switching element and a short circuit time of the second switching element.

3. A liquid crystal drive device according to claim 1, further comprising:

a gate driver for generating a select signal to be supplied to the plurality of gate electrode interconnects for the pixels, respectively; and

a source driver for supplying display data to be supplied to the plurality of source electrode interconnects for the pixels, respectively.

4. A liquid crystal drive device for supplying various signals and voltages for effecting display on a liquid crystal display panel comprising a plurality of source electrode interconnects extending in a first direction and juxtaposed in a second direction intersecting the first direction, a plurality of gate electrode interconnects extending in the second direction and juxtaposed in the first direction, an active element constituting a pixel at respective crossover points of the source electrode interconnects and the gate electrode interconnects, a plurality of common electrode interconnects disposed through the intermediary of a liquid crystal layer, and an external terminal coupled in common to the common electrode interconnects, said liquid crystal drive device comprising:

a first terminal to which a first reference voltage is supplied;

a second terminal to which a second reference voltage is supplied;

a third terminal to which a third reference voltage is supplied;

a fourth terminal coupled to the external terminal of the liquid crystal display panel;

a first voltage generation circuit coupled to the first terminal and second terminal, for generating a first voltage higher than the first reference voltage; and

a second voltage generation circuit coupled to the first terminal and second terminal, for generating a second voltage lower than the second reference voltage,

wherein a voltage supplied to the fourth terminal is changed from the first voltage to the second reference voltage and subsequently,

changed form the second reference voltage to the second voltage.

5. A liquid crystal drive device according to claim 4, further comprising:

a first switching element provided between the second terminal and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the first voltage to the second reference voltage;

a second switching element provided between the second voltage generation circuit and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the second reference voltage to the second voltage; and

a control circuit for controlling the first switching element and second switching element such that a period when both the first switching element and second switching element are turned off is provided between a short circuit time of the first switching element and a short circuit time of the second switching element.

6. A liquid crystal drive device according to claim 4, further comprising:

a gate driver for generating a select signal to be supplied to the plurality of gate electrode interconnects for the pixels, respectively; and

a source driver for generating display data to be supplied to the plurality of source electrode interconnects for the pixels, respectively.

7. A liquid crystal drive device for supplying various signals

and voltages for effecting display on a first liquid crystal display panel and a second liquid crystal display panel, respectively, each comprising a plurality of source electrode interconnects extending in a first direction and juxtaposed in a second direction intersecting the first direction, a plurality of gate electrode interconnects extending in the second direction and juxtaposed in the first direction, an active element constituting a pixel at respective crossover points of the source electrode interconnects and the gate electrode interconnects, a plurality of common electrode interconnects disposed through the intermediary of a liquid crystal layer, and an external terminal coupled in common to the common electrode interconnects, said liquid crystal drive device comprising:

a first terminal to which a first reference voltage is supplied;

a second terminal to which a second reference voltage is supplied;

a third terminal to which a third reference voltage is supplied;

a voltage generation circuit coupled to the first terminal and second terminal, for generating a first voltage higher than the first reference voltage and a second voltage lower than the second reference voltage;

a first common voltage generation circuit coupled in common to a plurality of pixels of the first liquid crystal display panel, for generating a first common voltage;

a second common voltage generation circuit coupled in common to a plurality of pixels of the second liquid crystal display panel, for generating a second common voltage;

a fourth terminal for outputting the first common voltage; and

a fifth terminal for outputting the second common voltage,

wherein the first common voltage generation circuit or the second common voltage generation circuit controls such that the first common voltage or the second common voltage is changed form the second voltage to the third reference voltage, and subsequently, changed from the third reference voltage to the first voltage when the first common voltage generation circuit or the second common voltage generation circuit generates the first common voltage supplied to the fourth terminal or the second common voltage supplied to the fifth terminal.

8. A liquid crystal drive device according to claim 7, wherein the first common voltage generation circuit or the second common voltage generation circuit controls such that the first common voltage or the second common voltage is changed form the first voltage to the second reference voltage and subsequently, changed from the second reference voltage to the second voltage when the first common voltage generation circuit or the second common voltage generation circuit generates the first common voltage supplied to the fourth terminal or the second common voltage supplied to the fifth terminal.

9. A liquid crystal drive device according to claim 8, further comprising:

a first switching element provided between the first common voltage generation circuit and the fourth terminal or the fifth terminal, to be short-circuited when the first common voltage or the second common voltage, supplied to the fourth terminal or the fifth terminal, is

changed from the second voltage to the third reference voltage;

a second switching element provided between the third terminal and the fourth terminal or the fifth terminal, to be short-circuited when the first common voltage or the second common voltage, supplied to the fourth terminal or the fifth terminal, is changed from the third reference voltage to the first voltage; and

a control circuit for controlling the first switching element and second switching element such that a period when both the first switching element and second switching element are turned off is provided between a short circuit time of the first switching element and a short circuit time of the second switching element.

10. A liquid crystal drive device according to claim 9, further comprising:

a third switching element provided between the second terminal and the fourth terminal or the fifth terminal, to be short-circuited when the first common voltage or the second common voltage, supplied to the fourth terminal or the fifth terminal, is changed from the first voltage to the second reference voltage;

a fourth switching element provided between the voltage generation circuit and the fourth terminal or the fifth terminal, to be short-circuited when the first common voltage or the second common voltage, supplied to the fourth terminal or the fifth terminal, is changed from the second reference voltage to the second voltage; and

a control circuit for controlling the third switching element and fourth switching element such that a period when both the third

switching element and fourth switching element are turned off is provided between a short circuit time of the third switching element and a short circuit time of the fourth switching element.

11. A liquid crystal drive device according to claim 7, further comprising:

a gate driver for generating a select signal to be supplied to the plurality of gate electrode interconnects for the pixels, respectively; and

a source driver for generating display data to be supplied to the plurality of source electrode interconnects for the pixels, respectively.

12. A liquid crystal drive device for supplying various signals and voltages for effecting display on a liquid crystal display panel comprising a plurality of source electrode interconnects extending in a first direction and juxtaposed in a second direction intersecting the first direction, a plurality of gate electrode interconnects extending in the second direction and juxtaposed in the first direction, an active element constituting a pixel at respective crossover points of the source electrode interconnects and the gate electrode interconnects, a plurality of common electrode interconnects disposed through the intermediary of a liquid crystal layer, and an external terminal coupled in common to the common electrode interconnects, said liquid crystal drive device comprising:

a common voltage generation circuit coupled to the external terminal for generating common voltages,

wherein the common voltage generation circuit forms a voltage waveform having an inflection point at a third potential point between a first potential and a second potential different from the first potential when a potential on the external terminal makes a transition from the first potential to the second potential.

13. A liquid crystal drive device outputting potentials to be supplied to common electrodes of a liquid crystal display panel, respectively,

wherein the respective common voltages form a voltage waveform having an inflection point in the vicinity of a third potential point between a first potential and a second potential different from the first potential when a potential on an external terminal makes a transition from the first potential to the second potential.

14. A liquid crystal drive device according to claim 12, wherein a voltage at the third potential point is a reference voltage supplied from an external signal source to a drive circuit.

15. A liquid crystal drive device according to claim 1, wherein a voltage supplied to the fourth terminal is changed from the second voltage to the second reference voltage, and subsequently, changed to the third reference voltage.

16. A liquid crystal drive device according to claim 7, wherein the first common voltage generation circuit or the second common voltage generation circuit controls such that the first common voltage or the second common voltage is changed form the second voltage to the second reference voltage, and subsequently, to the third voltage before changed

to the second reference voltage when the first common voltage generation circuit or the second common voltage generation circuit generates the first common voltage or the second common voltage, supplied to the fourth terminal or the fifth terminal.

17. A liquid crystal drive device according to claim 12, wherein the first potential is a potential lower than the second potential, the third potential is higher than the first potential but lower than the second potential, and a voltage waveform having an inflection point between the first potential and the third potential is formed upon potential transition from the first potential to the third potential.

18. A liquid crystal drive device for supplying various signals and voltages for effecting display on a liquid crystal display panel comprising a plurality of source electrode interconnects extending in a first direction and juxtaposed in a second direction intersecting the first direction, a plurality of gate electrode interconnects extending in the second direction and juxtaposed in the first direction, an active element constituting a pixel at respective crossover points of the source electrode interconnects and the gate electrode interconnects, a plurality of common electrode interconnects disposed through the intermediary of a liquid crystal layer, and an external terminal coupled in common to the common electrode interconnects,

said liquid crystal drive device being formed over a single semiconductor substrate; and comprising:

a first terminal to which a first reference voltage is supplied;

a second terminal to which a second reference voltage is supplied;

a third terminal coupled to the external terminal of the liquid crystal display panel;

a first voltage generation circuit coupled to the first terminal and second terminal, for generating a first voltage higher than the first reference voltage; and

a second voltage generation circuit coupled to the first terminal and second terminal, for generating a second voltage lower than the second reference voltage,

wherein a voltage supplied to the third terminal is changed from the second voltage to the first reference voltage, and subsequently, changed from the first reference voltage to the first voltage.

19. A liquid crystal drive device according to claim 1, further comprising:

a first switching element provided between the first voltage generation circuit and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the second voltage to the first reference voltage;

a second switching element provided between the third terminal and the fourth terminal, to be short-circuited when the voltage supplied to the fourth terminal is changed from the first reference voltage to the first voltage; and

a control circuit for controlling the first switching element and second switching element such that a period when both the first switching element and second switching element are turned off is provided between a short circuit time of the first switching element and a short

circuit time of the second switching element.

20. A liquid crystal drive device according to claim 19, further comprising:

a gate driver for generating a select signal to be supplied to the plurality of gate electrode interconnects for the pixels, respectively; and

a source driver for generating display data to be supplied to the plurality of source electrode interconnects for the pixels, respectively.